

# Disclosure Statement Zero Carbon Emissions 1 July 2016 to 30 June 2017



## Organisation and Product Information

Table 1: Organisation and Product Information

Organisation Name	Maribyrnong City Council	
Reporting year period	From 1/07/2016	To 30/06/2017
Actual emissions in this reporting year 2016/17	9743 tonnes CO <sub>2</sub> -e	
Carbon Offsets in this reporting year 2015/16	10,000 tonnes CO <sub>2</sub> -e	
Total Net Emissions in this reporting year 2015/16	0 tonnes CO <sub>2</sub> -e	
Base year period	From 1/07/2008	To 30/06/2009
Actual emissions in the base year 2008/09.	12,416* tonnes CO <sub>2</sub> -e *(12,828 estimate including items below.) *Emissions in the 08/09 base year did not include fugitive emissions, internal waste, air travel or paper which made up 412 tonnes CO <sub>2</sub> e in 16/17.	

## 1. Introduction.

Maribyrnong City Council reduced its corporate CO2e emissions to zero in the 2016/17 financial year in line with Council's commitment to become a zero carbon Council. Council first set a target to reach zero emission for its own operation by 2015 in 2008, with its Carbon Neutral Action Plan.

As Maribyrnong City Council is undertaking this initiative in an entirely voluntary capacity, Council has decided to undertake a voluntary Zero Carbon program rather than a more formal accreditation program due to the ongoing cost of accreditation which could be better spent in other ways.

Council has followed the same protocols as those required by the National Carbon Offset Standard (NCOS) and this disclosure statement allows interested parties to compare Maribyrnong City Councils CO2e emissions to those of similar Councils.

As the "Carbon Neutral" name has since 2008 been used by NCOS to accredit organisations – Council changed the name of its own program to Zero Carbon to avoid confusion with the formal program.

By making the decision to undertake an entirely voluntary program, Council is able to use the savings to further improve our underlying emissions through activities such as installing solar panels on community buildings and upgrading streetlights to energy efficient models.

## 2. Annual Trend Data

Table 2: Annual Emissions Trend Data in tonnes CO2e

Description	2008/09 Base Year	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Total Actual Emissions	12,416	11,719	12,188	12,120	11,355	10628	9,743
Less Greenpower Purchases	2,155	4,032	4,332	3,754	0	0	0
Less Carbon Offsets					11,355	10628	9,743
Total Net Emissions	<b>10,262</b>	<b>7,687</b>	<b>7,814</b>	<b>8,374</b>	<b>0</b>	<b>0</b>	<b>0</b>

Table 2 presents the actual emissions per year and the total net emissions.

Table 3: Estimated Savings in tonnes CO2e - Compared to Business As Usual

Description	2008/09 Base Year	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Business as Usual Estimate*	12,895	13,571	14,392	14,735	15,133	15,651	16,081
Total Actual Emissions	12,416	11,719	12,188	12,120	11,355	10,680	9,743
Estimated Savings from Energy Efficiency Initiatives.	479	1,852	2,204	2,615	3,778	4,971	6,338
Cumulative Savings Tonnes CO2e	479	4,005**	6,209	8,824	12,602	17,573	23,911

\*Estimate of emissions if no energy efficiency actions had been taken

\*\*includes 2009/10 and 2010/11 savings

Since 2008, Maribyrnong City Council has undertaken various energy efficiency initiatives, including an Energy Performance Contract of 4 of our largest energy using buildings in 2010 and the introduction of a cogeneration plant at the Maribyrnong Aquatic Centre in 2012. The actual savings of the energy efficient activities have been eroded by the addition of new buildings for example the Phoenix Youth Centre opened in 2010, the relocation of the Operations Centre to a bigger site using 4 times as much energy in 2012, an expansion of the Braybrook Hub and new library, and new streetlights installed in growth areas. Table 3 estimates the tonnes of CO2 e that Maribyrnong Council would be producing if conditions existing in 2008/09 continued until the present day. It also shows the estimated emissions savings that have been realised from energy efficiency initiatives since 2008/09.

### 3. Description of Organisation Activities

The City of Maribyrnong is a place of diversity, opportunities and challenges. Located only five kilometres west of Melbourne, its 31sq km area is made up of suburbs which vary significantly in demographics, population and geography. From the area's beginnings as the home of the traditional land of the Wurundjeri tribe of the Kulin Nation, the city now incorporates nine suburbs, Footscray, West Footscray, Yarraville, Seddon, Kingsville, Maribyrnong, Maidstone, Braybrook and Tottenham.

As an organisation, Maribyrnong Council had a total capital and operating budget of \$127 million (for 16/17), which was used to deliver a wide range of community services and maintain essential community infrastructure.

Council provides both universal services that are used by most community members (such as waste and recycling collection or footpath maintenance), and specialised services which respond to specific needs (such as meals on wheels and child care).

## 4. Organisational & Geographic Boundary/Scope & System Boundary

Maribyrnong City Council's emissions boundary for the entire organisation is based on national and international standards to ensure alignment with the National Carbon Offset Standard (NCOS) Program. This includes not only the *National Greenhouse and Energy Reporting Act 2007* (NGER Act), but also the GHG Protocol's Corporate Accounting and Reporting Standard 2004 - that covers the accounting and reporting of the six greenhouse gases covered by the Kyoto Protocol.

Council has included emission sources in its organisational boundary, based on two key determining factors:

- That the emissions would not have otherwise occurred if the City of Maribyrnong as an organisation did not exist (i.e. operational control); and
- That Council has confidence that the emissions are able to be measured completely and accurately

In summary, Council's emissions boundary has been established to include the following:

### **Scope 1 emissions (Direct Emissions)**

- Natural Gas;
- Transport Fuel (including Unleaded Petrol, Liquefied Petroleum Gas (LPG) and Diesel use);
- Fugitive emissions; and

### **Scope 2 emissions (Emissions released at a power plant as a result of activity at Council facilities)**

- Grid electricity

### **Scope 3 emissions (Emissions released in the wider community from consumables as a result of Council Activities)**

- Upstream Electricity Use- Street lighting;
- Business Air travel of employees
- Waste created from business operations;
- Paper.

## **Boundary Overview**

Council has calculated facility level CO2e emissions based on financial control. However we also assessed each facility for operational control to help us understand Council's broader responsibilities. We included

- Council owned and operated facilities.
- Facilities that Council owns or where Council is the Committee of Management for buildings that are leased to other organisations.
- Facilities that Council does not own but leases from external organisations.

Financial Control is defined as whether Council pays the utility costs for the facility.

Operational control relates to whether Council has the ability to set operating policies, health and safety policies and environmental policies. (As defined in the Greenhouse Gas Protocol).

*Council has analysed its building stock and applied the operational control test (as defined under NGER) and has confirmed that sites that are owned or leased and operated by Council are all under Council's operational control, as determined by the ability to set:*

- Operating policies
- Health and safety policies &
- Environmental policies

## **Council Owned or Managed Buildings That are Leased Out.**

Council has a number of buildings where the entire building is leased out to a third party. Using the same operational control test and based on details contained in the lease agreements Council does not have operational control of these sites, and they have not been included. These include a number of sporting clubs facilities.

## **Leased Spaces within Council Owned Buildings**

Council also has some sites (e.g. Maidstone Family Centre Hub, Braybrook Community Centre) where a significant portion of the building is leased out. In these circumstances Council is responsible for the utility bills in their entirety, although leaseholders are on charged. They are considered to be within Council operational and financial control and as such all emissions at these sites are included in Council's inventory.

## **Facilities Leased by Council.**

Council leases only one large site, the Operations Centre at 95 Sunshine Rd on a long term lease. It has been determined that this site is within Maribyrnong City Council's operational control and emissions from this site are included in Council's inventory.

## **Facilities where Council is the Committee of Management.**

Council is the Committee of Management for some facilities on Crown Land, e.g. Pipe makers Park, Yarraville Community Centre. Only those facilities operated by Maribyrnong City Council are included in the inventory.

Only those owned or leased facilities where Maribyrnong City Council has Financial Control has been included in the scope of this greenhouse gas inventory.

### **Other Inclusions**

Fugitive Emissions of synthetic gases from air conditioning units in facilities operated by the City of Maribyrnong is a direct Scope 1 emission. This has been estimated, as no other organisation will account for this Scope 1 emission. Checking each air conditioning unit and undertaking the calculations is a lengthy exercise. As the emissions in other Councils have been reported as being less than 1% of total emissions, Maribyrnong Council has included an estimate of 1% of the previous year's (15/16 financial year) emissions. 106 tonnes of CO<sub>2</sub>e have been added to the inventory to account for this.

### **Exclusions**

There are some exclusions from Council's emissions inventory. Some of these fall within Council's organisational boundary but have been excluded from quantification in line with Section 4.2.3 of the National Carbon Offset Standard (NCOS), due to one (or more) of the following:

- the emissions are likely to be negligible (relative to other scope 3 emissions);
- determining the emissions will be very costly relative to their likely significance or;
- there is insufficient data.

These exclusions are:

- purchased goods (including Capital goods) and services;
- employee commuting (except those commuting in a fleet vehicle);
- goods sold, including transportation, distribution, processing, their use and their end of life treatment;
- downstream leased assets - where that party has operational and financial control, such as some community buildings and pavilions,
- investments

Other scope 3 emissions are outside Council's organisational boundary and as such are not included in this inventory.

- Municipal waste – all waste generated by the broader Maribyrnong community, with the exception of the corporate waste that Council produces;
- Community emissions (emissions emitted within the City of Maribyrnong but outside of Council's operational control);
- Business travel of employees (including Public Transport and Taxis, Rental Cars and Buses);
- Contractor Fuel Use ;
- Emissions from Water (Corporate Use).

## 5. Total Carbon Footprint – 16/17 Year

Table 4: Emission sources, scopes and quantities

Scope	Emission source	tonnes CO <sub>2</sub> -e
1	Transport (petrol)	248
1	Transport (Autogas – LPG)	70
1	Transport (Diesel)	547
1	Fugitive Emissions	106
1	Natural Gas	1,330
2	Electricity	4,205
3	Electricity –Street Lighting	2,931
3	Waste from Internal Council Operations	269
3	Paper Use within Council	23
3	Business Travel of Employees - Flights	14
Total carbon footprint in tonnes CO <sub>2</sub> -e		9,743

## 6. Carbon Offset Purchases and Retirement for this Reporting Period – 2016/17

When Council first adopted the Carbon Neutral Action Plan in 2008, the strategy to become carbon neutral was to purchase accredited Green Power incremented each year until we achieve 100% green power for electricity usage and accredited offsets for all other emissions. However, in 2014 Council decided to move to only purchase NCOS approved offsets for all emissions and use the financial savings to invest in additional projects and actions which will reduce energy consumption and also to increase Council's direct investment in renewable energy such as solar panels and solar hot water in Council facilities.

### Offset Purchase:

In the 16/17 financial year Council purchased and retired 10,000 tonnes of accredited CO<sub>2</sub>e offsets. Only 9,747 tonnes were required to offset the Carbon Footprint. Council will retire a greater amount of offsets, in order to allow for any minor undetected discrepancies, and for scope 3 distribution losses which can be calculated but have not previously been included within scope,

The offsets were VCU accredited offsets for the Bundled Solar Power Project by D.J. Malpani and Giriraj Enterprises in India

Table 5: Offset Cancellations

Offset type	Registry	Serial number	Quantity (t CO <sub>2</sub> -e)
VCU	APX VCS Registry	5079-211260944-211270943-VCU- 029-MER-IN-1-1670-01012017- 25022017-0	10,000
<b>Total</b>			<b>10,000</b>

### Emissions Reduction Measures

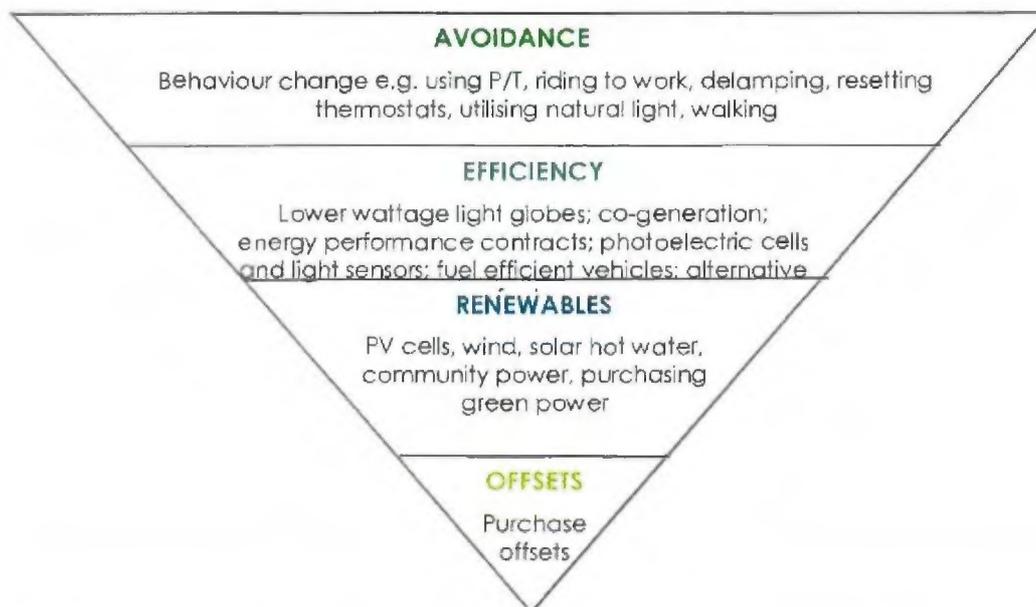
Since Council's first Carbon Neutral Action Plan was released in 2008 it has been recognised that Maribyrnong Council's response to the impacts of climate change needs to include a commitment to greenhouse mitigation. The impacts of climate change are being felt now and likely to become more severe. It is considered that mitigation actions now will reduce the cost and effort required to adapt to climatic changes and improve future environmental, social, health, and economic outcomes.

The Maribyrnong City Council Carbon Strategies covering the periods 2008-15 (Carbon Neutral Action Plans) and 2015-19 (Zero Carbon Maribyrnong) set the following relevant targets:

1. Zero Emissions for Corporate Activities of Council by 2015
2. Carbon Neutral Municipality by 2020

While the Carbon Neutral Action Plan identified a target to become a carbon neutral organisation in 2015 (which was achieved) as a key target, Council has a holistic approach to carbon management via the following 'energy hierarchy'. The hierarchy enables Council to prioritise its immediate and long term actions and methods in reducing its emissions.

### Energy Efficiency Hierarchy



The Zero Carbon plans were based on the energy efficiency hierarchy shown below. Using the hierarchy as a model:

- Avoiding the creation of carbon emissions in the first place are the most valuable actions as they minimise carbon emissions the most effectively and with the fewest resources.
- Energy efficiency initiatives are the next preference as they enable existing resources to be utilized to their capacity while operating efficiently.
- The purchase of renewables such as green power, solar hot water and solar panels are then considered valuable in powering more efficient appliances without using finite energy sources.
- Offsets are the final step after undertaking all of the other actions. They enable those emissions that are more difficult to be reduced, to be offset by other carbon emission reducing activities.

Table 6: Emissions Reductions Measures

Emission source	Reduction Measure	Scope	Status	Reduction t CO <sub>2</sub> -e
Electricity Street lighting	Upgrade of Energy Efficient T5 Streetlights to replace 4140 Mercury Vapour 80 Watt lights. Installed late last year – proportion of savings first achieved this year.	3	Implemented this reporting period	576
Electricity	Braybrook Hub 70 KW Solar Panels	2	Implemented this reporting period	102
Electricity	Solar Program – 3 Council Buildings	2	Implemented this reporting period	31
Electricity	Lighting Upgrades – 4 Council Buildings	2	Implemented this reporting period	108
Electricity	West Footscray Lighting Upgrade Library	2	Planned for future reporting period	12
Electricity	Footscray Town Hall Lighting Upgrade	2	Planned for future reporting period	21
Electricity	95 Sunshine – Operations Centre – 40 KW	2	Planned for future reporting period	63
Electricity	Replacement of 140 decorative lights MV80 with 17W LED	3	Planned for future reporting period	49
Total emission reductions implemented in this reporting period (2016/17)				817
Total expected emission planned for future reporting periods (2017/18)				145

Note – As some of this years initiatives were implemented in the middle or later part of the year, only part of the reductions have been achieved in the current reporting period. The full year savings will not be realised until one full year has elapsed from the time of installation.

## 7. Declaration

To the best of my knowledge and having implemented the quality controls and standards required using a similar methodology to the NCOS Carbon Neutral Program and made all appropriate inquiries, the information provided in this Public Disclosure Summary is true and correct.

Sunil Bhalla



Name of Signatory

Signature

Position / Title of Signatory: Director – Infrastructure Services

Date: 0.12.17

6 December 2017

To whom it may concern

Re Carbon Neutral Verification – Maribyrnong City Council

Ecodecisions was tasked with independently verifying and auditing the Zero Carbon Emissions project undertaken by Maribyrnong City Council for the period 1<sup>st</sup> July 2016 to 30<sup>th</sup> June 2017.

## Scope of audit

The scope of the audit was to verify:

1. That all scope 1,2, 3 emissions were accounted for based on the LGASA and NCOS guidelines
2. The correct emission factors were used based on the [National Greenhouse and Energy Reporting \(Measurement\) Determination 2008, August, 2016](#)
3. GHG factors for air travel based on the latest figures calculated by [International Civil Aviation Organization \(ICAO\) Carbon Offset Calculator](#)
4. The GHG factors for waste from [2016 National Greenhouse Account Factors](#)
5. The correct factors for paper usage based on the latest figures from EPA Victoria.
6. The calculations for each category was checked
7. The offsets purchased were verified by checking the APX VCS registry

### Notes

1. Fugitive emissions of refrigerants were estimated and physical verification was outside of the scope of audit.
2. The only scope 3 electricity emissions counted were for public street lighting. Scope 3 emissions for other electricity use was deemed outside the scope of the project.

## Verification Statement

I certify that the emissions statement and the offsets purchased are accurate within the scope of the audit and that the offsets purchased are legitimate and verified.

In our opinion, except for the effects of the matters referred to in the notes section of the scope of audit, the participant's Greenhouse Gas Inventory and Public Disclosure Summary are, in all material aspects, in accordance with the National Carbon Offset Standard and National Carbon Offset Standard Carbon Neutral Program Guidelines.

A handwritten signature in black ink, appearing to read 'Graeme Ambrose'.

Graeme Ambrose , Lead Auditor, EcoDecisions

